A LIST OF DIPTERA TAKEN AT KEARNEY, ONTARIO, IN JULY, 1909.

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The Diptera listed below were taken by me during a collecting trip to Kearney, July 2nd to 9th, 1909. As I had no thought at the time of publishing a list of the species taken, many of the common forms were not noted, but such unrecorded species are probably well known and widely distributed.

Kearney is located in the Parry Sound District, about fifty miles north of Muskoka, and as many miles east of Parry Sound. It is surrounded by low hills, from which most of the pine had been cut, the trees still standing being largely birch. In many places there was a thick growth of hazel and raspberry, and many Cornus bushes, which were in bloom at the time, were scattered over the low ground. There are well-tilled farms among the hills and along a valley through which a considerable stream flows, and near the town widens into almost a lake and receives several swampy creeks. There is, therefore, a great variety of conditions within a small area about Kearney, and I found it an excellent location for collecting insects.

I am greatly indebted to Prof. C. W. Johnson for the determination of a large number of the species enumerated in this list, and to Prof. J. M. Aldrich for his determination of *Dolichopidæ* and for his help and encouragement which has enabled me to determine some of these species myself. I also wish to acknowledge my indebtedness to Prof. James Hind, who kindly went over all the *Tabanidæ*, and to Dr. Johannsen and Dr. Williston for the study of material. Where not otherwise indicated, the species have been determined by myself.

The nomenclature here used follows the Aldrich Catalogue, except in a few cases, where the change is noted.

Family TIPULIDÆ.

Rhipidia fidelis O. S. Limnobia triocellata O. S. Erioptera armata O. S. Erioptera caloptera Say. Liogma nodicornis O. S. Bittacomorpha clavipes Fabr. Oropeza venosa Johnson. July, 1911 Ctenophora apicata O. S.— I took one female flying by a roadside in a patch of swampy woods, and have since taken another specimen under similar conditions at Ridgeway, Ont.

Pachyrhina incurva Loew.

Family CHIRONOMIDÆ.

Palpomyia rufus Loew .- Det. Johnson.

Palpomyia trivialis Loew.—Det. Johnson. In the Aldrich Catalogue these two species are placed in *Ceratopogon*, but Johannsen refers them to *Palpomyia*.

Procladius caliginosus Johannsen .- Det. Johannsen.

Tanypus monilis Linn .- Det. Johnson.

Chosmatonotus unimaculatus Loew.—Det. Johnson. The White Mts., N. H., are given as the type locality of this species. I took several species at Kearney that were described from the White Mountain District.

Chironomus nigricans Johann.—There was but one specimen, a female, among the Kearney material, but probably it was a common species there. I have found it abundant at Toronto and about Buffalo.

Chironomus atrimanus Coq.

Metriocnemus par Johann.—I took one female that appears to be of this species, but the dark markings are of a very light brown. It seems to be immature, and measures but 4 mm.

Family CULICIDÆ.

Anopheles punctipennis Say. Culex cantans Meig. Culex sylvestris Theobald.

Family MYCETOPHILIDÆ.

Symmerus (Plesiostina) lauta Loew.

Apemone sp.—This may be *Platyura maudæ* Coq., but the abdomen is black, except that most of the third segment is reddish-yellow, otherwise it agrees well with the description of that species.

Mycomya mendax Johann.—My one female seems to agree well with the description of the female taken by Aldrich at Juliaetta, Idaho.

Family BIBIONID.E. Bibio xanthopus Wied.—Det. Johnson. Dilophus obesulus Loew.—Det. Johnson. Dilophus sp. Scatopse atrata Say.—Det. Johnson.

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Family SIMULIIDÆ.

Simulium meridionale Riley.

Simulium venustum Say .- This species was very troublesome the first days of July.

Family RHYPHID.Æ. Rhyphus fenestralis Scopoli.—Det. Johnson.

FAMILY STRATIOMYIDÆ. Beris annulifera Bigot.—Det. Johnson. Allognosta fuscitarsis Say.— Det. Johnson. Actina viridis Say.—Det. Johnson. Geosargus (Sargus) cuprarius Linn.—Det. Johnson. Geosargus viridis Say.—Det. Johnson.



FAMILY TABANID.E.

[Prof. Hind determined or verified all the species in this family].

Chrysops mitis O. S.

Chrysops celer O. S.

Chrysops carbonarius Walker.

Chrysops cuclux Whitney.

Chrysops excitans Walker.

Chrysops frigidus O.S.

Chrysops striatus O. S.

Tabanus lasiophthalmus Macq.

Tabanus illotus O.S.

Tabanus epistates O. S.—Numbers of this species could always be found on the windows of the railway station.

Family LEPTID.E. Xylomyia pallipes Loew.—Det, Johnson. Leptis mystacea Macq.—Det. Johnson. Leptis plumbea Say.—Det. Johnson. Chrysospila quadrata Say.—Det. Johnson. Abundant in damp woods.

Family CYRTIDÆ.

Pterodontia flavipes Gray.—I took one specimen while beating low bushes on a hillside. I have another specimen taken by my brother, E. P. Van Duzee, on Mackinac Isd., Michigan, in July, 1910.

Family BOMBYLIID.E.

Spogostylum pluto Wied .- Det. Johnson. I saw quite a number on

the ground and on logs where there had been a bush fire a few weeks previous.

Anthrax morio Linn.—Det. Johnson. Common along paths and roads. Those taken vary from 4¹/₂ mm. to 9 mm. in length. Anthrax lepidota O. S.

Family THEREVIDÆ.

Thereva frontalis Say.—Det. Johnson. Thereva nigra Say.—Det. Johnson.

Family Asilidæ.

Dasyllis grossa Fabr. Dasyllis socratos Walker. Dasyllis posticata Say.—Det. Johnson. Dasyllis flavicollis Say.—Det. Johnson. Laphria sericea Say.—Det. Johnson.

Laphria æatus Walker .- Det. Johnson.

Laphria sp.—Much like the preceding, but with a golden and black matrix.

Laphria pubescens Willist .- Det. Johnson.

Laphria canis Willist.—I found Dasyllis and Laphria much more abundant than they are about Buffalo.

Family DOLICHOPIDÆ.

Psilopodinus patibulatus Say .- Det. Johnson.

Psilopodinus scobinator Loew.—Det. Aldrich. This species was very abundant along the sunny edges of woods. There were great numbers of individuals of this family near the marshy borders of the streams, and I now regret that I was not more thorough in collecting them.

Chrysotus obliquus Loew.—Det. Aldrich. These were also abundant in sunny places.

Chrysotus affinis Loew.

Chrysotus chloricus Wheeler.

Chrysotus discolor Loew.

Argyra albicans Loew .- Det. Aldrich.

Neurigonia spp.—I sent two species belonging to this genus to Prof. Aldrich, and he reports that both are still undescribed.

Neurigonia rubella Loew.-One female seems to belong to this species.

Medeterus sp.—One female belonging to this genus I have not yet been able to determine.

Dolichopus calcaratus Aldr.-Quite abundant in places. Dolichopus longimanus Loew. Dolichopus palæstricus Loew. Dolichopus batillifer Loew. Dolichopus sp.-Prof. Aldrich determined this as No. 32 of his manuscript table of the species of Dolichopus. Dolichopus splendidus Loew.-Det. Aldrich. Dolichopus melanocerus Loew. Dolichopus brevimanus Loew. Dolichopus reflectus Aldr. Dolichopus lobatus Loew. Dolichopus discifer Stannius. Dolichopus scoparius Loew. Dolichopus chrysostoma Loew. Gymnopternus frequens Loew .- Det. Aldrich. Hercostomus unicolor Loew .- Det. Aldrich. Paraclius claviculatus Loew.

Family EMPIDÆ.

Platypalpus flavirostris Loew.—Det. Johnson. Synechus pusillus Loew. Empis pallida Loew.—Det. Johnson. Empis pæciloptera Loew. Rhamphomyia mutabilis Loew.—Det. Johnson. Rhamphomyia basalis Loew. Rhamphomyia hirtipes Loew. Rhamphomyia pulla Loew. Rhamphomyia minutus Walker? Rhamphomyia luteiventris Loew.—Det. Johnson.

Family PLATYPEZID.E. Platypeza velutina Loew.—Det. Johnson.

Family PIPUNCULIDÆ. Pipunculus nitidiventris Loew.—Det. Johnson.

Family SYRPHIDÆ.

Microdon tristis Loew.--Two specimens were taken resting on leaves of hazel bushes.

Chrysogaster pulchella Willist.

Pipiza spp.—Two species were taken, one of which may be *puella* Willist., but I cannot be sure of the species belonging to this genus.

Paragus tibialis Fallen.

Melanostoma mellinum Linn.

Syrphus Americanus Wied.

Syrphus Lesueurii Macq.

Syrphus ribesii Linn.

Syrphus arcuatus Fallen.

Allograpta obliqua Say .- Quite abundant about meadows.

Mesogramma geminata Say.

Sphærophoria cylindrica Say.

Sphegina lobata Loew.

Sphegina Keeniana Willist.

Rhingia nasica Say.

Volucella evecta Walk.

Sericomyia bifasciata Willist.—Two specimens taken flying in the bright sunshine about the leaves of low weeds along the edge of a wood.

Sericomyia chalcopyga Loew.—One specimen was taken resting on a leaf in the woods.

Condidea lata Coq.—Det. Williston. Several were seen flying around and alighting on the wet ground along a roadside ditch in the woods, but their motions were so quick I was only able to capture one.

Helophilus grænlandicus O. S.—These were taken with the preceding. I also took one on stones in a running brook.

Syritta pipiens Linn.

Xylota ejuncida Say.—Det. Williston. Also taken by the side of the water.

Family CONOPIDÆ.

Zodion fulvifrons Say.—Det. Johnson. Zodion nanellum Loew.—Det. Johnson. Oncomyia abbreviata Loew.—Det. Johnson. Myopa clausa Loew.—Det. Johnson.

Family TACHINIDÆ. Macquartia pristis Walk.—Det. Johnson. Ocyptera dorsiades Walk.—Det. Johnson. Metachæta helymus Walk. Peleteria tesellata Fabr.—Det. Johnson. Archytas aterrima Desvoidy.—Det. Johnson.

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Family Muscidæ. Morellia micans Macq.—Det. Johnson.

Family ANTHOMVIDÆ. Mydæa nigripennis Zett.—Det. Johnson. Spilogaster signia Walk.—Det. Johnson. I saw a number of these in the crevices of the rough bark of large trees. Spilogaster nitens Stein.—Det. Johnson. Spilogaster pagana Fabr.—Det. Johnson. Limnophora diaphana Wied.—Det. Johnson. Taken resting on trunks of trees.

Phorbia latipennis Zett.—Det. Johnson. Phorbia fuscipes Zett.—Det. Johnson. Canosia calopyga Loew.—Det. Johnson.

Family SCATOPHAGIDÆ. Cordylura gracilipes Loew.—Det. Johnson. Cordylura munda Loew.—Det. Johnson. Cordylura setosa Loew.—Det. Johnson. Parallelomma varipes Walk.—Det. Johnson. Scatophaga furcata Say.—Det. Johnson. Scatophaga pallida Walk.—Det. Johnson. Scatophaga stercoraria Linn.—Det. Johnson. Scatophaga suilla Fabr.—Det. Johnson.

Family HETERONEURID.E. Clusia lateralis Walker.—Det. Johnson.

Family HELOMYZID.E. Scoliocentra helvola Loew.—Det. Johnson.

Family SCIOMYZIDÆ.

Bischofia (Dryomyza) aristalis Coq.—Det. Johnson Neuroctena analis Fallen.—Det. Johnson. Tetranocera plebeja Loew.—Det. Johnson. Tetranocera valida Loew.—Det. Johnson. Tetranocera plumosa Loew.—Det. Johnson. Tetranocera flavescens Loew.—Det Johnson. Tetranocera flavescens Loew.—Det. Johnson. Tetranocera pallida Loew.—Det. Johnson. Tetranocera saratogensis Fitch.—Det. Johnson. Family SAPROMYZIDÆ.

Lauxania obscura Loew.—Det. Johnson. Sapromyza vulgaris Fitch.—Det. Johnson. Sapromyza bispina Loew.—Det. Johnson. Sapromyza tompedita Loew.—Det. Johnson. Sapromyza lupulina Fabr.—Det. Johnson.

Family ORTALIDÆ.

Melieria similis Loew.—Det. Johnson. This species was taken quite abundantly in the sweep-net from rank weeds growing by a swampy creek near the village.

Leoptera vibrans Loew.—Det. Johnson. These were always to be found on the windows of the railway station but none were taken elsewhere.

Family TRYPETIDÆ.

Rhagolitis fausta O. S.—Several specimens of this pretty species were taken from the sweep-net or found resting on the leaves of the rank vegetation on swampy ground. The larvæ live in cherries, but I did not notice any cherry trees near where they were taken, wild cherries, however, were common about Kearney.

Family MICRCPEZIDÆ. Calobata univitta Walk.—Det. Johnson.

Family SEPSIDÆ. Sepsis violacea Meig.—Det. Johnson. Nemopoda cylindrica Fabr.—Det. Johnson.

Family PSILIDÆ, Chyliza apicalis Loew.—Det. Johnson. Psila bicolor Meig.—Det. Johnson.

Family EPHYDRIDIÆ. Dichæta caudata Fallen.—Det. Johnson. Scatella stagnalis Fallen.—Det. Johnson.

Family OSCINIDÆ. Oscinis coxendix Fitch.—Det. Johnson. Chlorops crocota Loew.—Det. Johnson.

Family DROSOPHILIDÆ. Drosophila funebris Fabr.—Det. Johnson.

The 181 species enumerated above represent 109 genera and 36 families.